



## RESEARCH PAPER

# Food grain storage practices followed by the farm women

■ K.M. CHAVAN\*, P.G. MEHTA<sup>1</sup> AND R.A. KALE

Department of Extension Education, Mahatma Phule Krishi Vidyapeeth, Rahuri, AHMEDNAGAR (M.S.) INDIA

<sup>1</sup>Department of Extension Education, College of Agriculture, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, RATNAGIRI (M.S.) INDIA

\*Author for Correspondence

Research chronicle : Received : 25.09.2013; Revised : 09.11.2013; Accepted : 21.11.2013

## SUMMARY :

In order to study the food grain storage practices followed by the farm women, 120 farm women were selected randomly from Raigad district of konkan region. The special designed schedule was used for collection of data. The data were collected for the year 2009. The data regarding practices used by the farm women for storage of food grains revealed that majority of the respondents had 'fully' adopted the practices namely, 'proper drying and cleaning of food grain on threshing yard "sun drying' (93.33 %) used gunny bags as container for food grain storage (87.50 %). 93.33 per cent of the respondents used neem leaves to protect the food grain from stored grain pest. Majority of the respondents had 'not adopted' the practices namely 'use of silo bin, pusa bin, kisan kothi' (100.00 %), "spraying of insecticides on storage material before storage of food grains' (95.84 %) and use of fumigants' (94.17 %).

**KEY WORDS :** Food grains, Storage, Farm women, Adoption, Improved storage practices

**How to cite this paper :** Chavan, K.M., Mehta, P.G. and Kale, R.A. (2013). Food grain storage practices followed by the farm women. *Internat. J. Proc. & Post Harvest Technol.*, 4 (2) : 83-85.

Food storage continues to be an important problem from the time man learnt to grow crops. Millions of tones of food grain are either damaged or lost for want of knowledge of scientific method of storage. This problem is also challenge to scientists who are called to tackle it. Recently many new improvements have been made during last decade in storage of food grains. A subsequent study by Indian scientist and technologists resulted in development of designs of storage facilities suitable to local conditions with relatively less expensive. Airtight bulk storage container, underground pits, above ground pits are recommended to tackle this problem. It is well known that the losses in storage at the level of government and the agencies have been reduced to minimum. But it is not enough. The most vulnerable area is the farmers storage where 60 to 70 per cent of the produce is retained and the maximum losses occur here. It would therefore, be extremely tragic if the wastage of food grains at the level of farmer are not

avoided. To know the food grain storage practices followed by farm women, this study was planned with following specific objective.

## EXPERIMENTAL METHODS

The study was conducted in Raigad district of the Konkan region. Roha and Karjat tahsils were randomly selected. From the selected tahsil, five villages, where rice is grown in *Kharif* and *Rabi* season were selected. Thus, a total of ten villages were selected. Then, from each selected village, 12 farm women were selected randomly, thus making a sample of 120 farm women respondents. Data were collected by personal interview method with the pretested schedule designed for the purpose.

## EXPERIMENTAL FINDINGS AND ANALYSIS

The data in respect of traditional food grain storage

Sr. No.	Practices followed	Respondents	
		Number	Percentage
<b>A.</b>	<b>Methods to keep food grain air tight</b>		
1.	Use of mud and cow dung	42	35.00
2.	Plastic covering	51	42.50
3.	Use of air tight storage structure(steel bin, pusa bin)	28	23.33
<b>B</b>	<b>Prevention of food grain from moisture</b>		
1.	Use of stand	102	85.00
2.	Keeping distance between bags and ceiling	53	44.16
<b>C</b>	<b>Material used for storage of food grain</b>		
1.	Use of neem leaves	112	93.33
2.	Use of ash	99	82.50
3.	Use of clay	5	4.16
4.	Use of oil (neem oil, karanj oil, ground nut oil)	7	5.83
<b>D</b>	<b>Care in store places</b>		
1.	Keeping proper distance between two rows of gunny bags	71	59.16
2.	To plug the hole, crack, crevices in storage room	92	76.66

Sr. No.	Improved practices	Adoption		
		Full	Partial	No
<b>A)</b>	<b>Mechanical control</b>			
1)	Proper drying and cleaning of harvested food grain on threshing yard	110 (91.66)	10 (8.34)	---
2)	Sieve the food grains after threshing	50 (41.67)	65 (54.17)	5 (4.16)
<b>B)</b>	<b>Preventive measures</b>			
1)	Sun drying	112 (93.33)	8 (6.67)	---
2)	Keeping 10-12 per cent moisture content during storage of food grain	27 (22.50)	55 (45.83)	38 (31.67)
3)	Use of stand	42 (35.00)	60 (50.00)	18 (15.00)
4)	Keeping gunny bags away from ceiling	26 (21.66)	79 (65.83)	15 (12.51)
5)	Keeping gunny bags away from wall	36 (30.00)	67 (55.83)	17 (14.17)
<b>C)</b>	<b>Use of storage structure</b>			
1)	Improved steel bin	34 (28.33)	9 (7.50)	77 (64.17)
2)	Silo –bin	----	----	120 (100.00)
3)	Barrel	31 (25.83)	16 (13.33)	73 (60.84)
4)	Kothar	13 (10.83)	3 (2.50)	104 (86.67)
5)	Pusa bin	----	----	120 (100.00)
6)	Kisan kothi	----	----	120 (100.00)
<b>D)</b>	<b>Chemical control</b>			
1)	Spraying of insecticides on storage materials before storage of food grains	3 (2.50)	2 (1.66)	115 (95.84)
2)	Use of fumigants EDB/EDCT/ Aluminium phosphide	4 (3.33)	3 (2.50)	113 (94.17)
<b>E)</b>	<b>Maintenance of storage place</b>			
1)	Proper aeration	76 (63.33)	33 (27.50)	11 (9.17)
2)	Do not store old and new food grain together	50 (41.67)	51 (42.50)	19 (15.83)
3)	Keep gunny bags in rectangular shape in the storage room	17 (14.16)	44 (36.66)	59 (49.18)
4)	To plug hole crack crevices in the storage room	47 (39.16)	45 (37.50)	28 (23.34)
<b>F)</b>	<b>Control from rodents</b>			
1)	Rearing of cat	66 (55.00)	----	54 (45.00)
2)	Use of trap	36 (30.00)	63 (52.50)	21 (17.50)
3)	Use of rodenticides (Zinc phosphide, Aluminum phosphide )	35 (29.16)	51 (42.50)	34 (28.33)

practices followed by the farm women were collected and given in Table 1.

The data from Table 1 indicated that farm women were using plastic covering (42.50 %) and use of mud and cow dung (35.00 %) followed by use of airtight storage structure (23.33%) for keeping food grain air tight. The data indicated that large majority (93.33 %) of the farm women were using neem leaves for protecting food grain from pest. However, 82.50 per cent respondents were using ash, relatively small proportion (5.83%) and (4.16 %) of the respondents were using oil and clay for storing grains, respectively. Three fourth (76.66 %) of the respondents plug the hole, cracks, crevices in storage room, while 59.16 per cent of the respondents were keeping proper distance between two rows of gunny bags. These findings are similar with the findings of Anonymous (2000), Bhople and Darbha (2000) and Uplap (2003).

#### **Adoption of improved food grain storage practices by the farm women :**

The data regarding adoption of improved food grain storage practices by the farm women were collected and are presented in Table 2.

The data from Table 2 showed that majority (91.66 %) of the respondent 'fully' adopted proper drying and cleaning of food grain on threshing yard. While 41.67 per cent of the respondents had 'fully' adopted the practice of 'sieving of food grains after threshing and 54.17 per cent of the respondents 'partially' adopted this practice. It is evident from Table 2 that 93.33 per cent of the respondents 'fully' adopted the practice of sun drying. It was also observed that 45.83 per cent of the respondents 'partially' adopted the practice 'Keeping 10-12 per cent moisture content during storage of food grain'. However, 35.00 per cent of the respondents used stand for prevention of food grain from moisture. While 65.83 per cent of the respondents 'partially' adopted the practice 'keeping gunny bags away from ceiling', 55.83 per cent of the respondents partially used the practice keeping gunny bags away from the wall. Only 28.33 per cent of the farm women were fully using improved steel bin and 25.83 per cent of

them were fully using barrel as a storage structure, followed by kothar (10.83 %), while 13.33 per cent of the farm women 'partially' used the barrel. Not a single woman had used silo bin, pusa bin and kisan kothi as storage structure.

The data indicated that only few (2.50 %) of the respondents fully adopted the practice spraying of insecticides on storage materials before storage of food grain, 1.66 per cent the farm women partially adopted this practice. However, 3.33 per cent of the respondents fully used the practice of use of fumigants, 2.50 per cent of the respondents partially used this practice. It shows that majority (63.33 %) of the respondents were practicing the methods of keeping proper aeration in the storage room, 27.50 per cent of farm women 'partially' adopted this practice. However, 41.67 per cent of the farm women do not store old and new food grain together, only 14.16 per cent of the farm women were fully adopting the practice 'keeping gunny bags in rectangular shape. However, 29.16 per cent of the respondents fully used the practice 'use of rodenticides', 42.50 per cent of them partially used this practice. It is clear that certain improved practices like use of silo bin, pusa bin, kisan kothi, use of insecticides and fumigants were not adopted by large majority of the farm women. Thus extension agencies and development workers in the region should plan and implement suitable strategy to increase the adoption of these improved storage practices.

#### **Conclusion :**

The findings of the study also confirmed that majority of the farm women had fully followed the practices, which were known to them, which were simple and inexpensive and which could be accommodated with in the resources available with them. The practices which were not known to them and which were beyond there resource limits, were not followed by them. These findings suggested that there is need to drive farm women successfully through the adoption process of stored grain practices. The extension organizations should do this by using appropriate extension teaching methods at the respective steps of adoption process.

## LITERATURE CITED

- Anonymous (2000). Documentation of indigenous technical knowledge. (unpublished report) Konkan Krishi Vidyapeeth, Dapoli, RATNAGIRI (M.S.) INDIA
- Bhople, R.S. and Darbha, Sudha (2000).** Indigenous grain storage practices followed in rural household. *Agric. Extn. Rev.*, : 26-29
- Pallavi, Uplap (2003).** Adoption of food grain storage practices by the farm women and their training need. M.Sc. (Ag.) Thesis Mahatma Phule Krishi Vidyapeeth, RAHURI, M.S. (INDIA).

2<sup>th</sup>  
Year  
★★★★★ of Excellence ★★★★★